

REMARKS

Claims 1-12 stand rejected under 35 USC 112, second paragraph, as being indefinite.

In connection with claims 1, 10 and 11, the examiner has questioned the terms "a tester channel," "tester," "conductive switch element," and "contact pins." The examiner has inquired as to whether these are shown in the drawings.

The term "tester channel" is widely used in the integrated circuit tester art to refer to the signal path between the integrated circuit tester and an I/O pin of the device under test. For example, U.S. Patent 6,218,910 states in the paragraph starting at column 1, line 31, "An IC tester typically includes a separate channel for each terminal of an IC to be tested, and during a test each channel may transmit a test signal to the IC terminal or may receive and process an IC output signal appearing at the IC terminal." Applicant therefore submits that the term "tester channel" is clear and well understood by those skilled in the art.

Claims 1, 10 and 11 do not refer simply to a tester but to a semiconductor integrated circuit tester, commonly known simply as an integrated circuit tester. A search on the PTO database for patents including the phrase "integrated circuit tester" in the title returned 74 hits and applicant therefore submits that this term is well understood.

The counterpart in the Detailed Description of the "conductive switch element" referred to in claims 1, 10 and 11 is the switch element 50, which is first introduced on page 6 and is described in detail, both in structure and function, on page 7. The specification has been amended at page 6, line 37, to refer to the switch element 50 as a conductive switch element, consistently with claims 1, 10 and 11.

It is clear from the sentence starting at page 2, line 20, that the counterpart in the Detailed Description of a contact pin referred to in claims 1, 10 and 11 is a pogo pin.

With regard to claim 2, the examiner questions what the term "a support frame" represents. The term "support frame" is used at page 7, line 5, to refer to the element 54 and applicant therefore believes that the counterpart of the "support frame" of claim 2 is clear.

With regard to claims 4 and 8, the examiner questions whether "contact pins" is the same as "contact member." The term "contact

member" is not used in the entire specification and the term "member" is not used in either claim 4 or claim 8.

The examiner questions what is the counterpart of the "actuation element" referred to in claim 9. It is clear from the description of the function of the actuation element that the counterpart of the claimed actuation element is the outer stiffener ring 102 of the legacy load board 100. Paragraph [0037] has been amended to use the term "actuation element" in the context of the outer stiffener ring.

Applicant has amended claim 12 to change the references to pogo pins to contact pins.

Claims 1 and 11 stand rejected under 35 USC 103 over Ueno et al. Applicant respectfully traverses. In support of the rejection, the examiner asserts that the LSI under test shown by Ueno et al would constitute a load board within the meaning of claims 1 and 11. Applicant respectfully disagrees. The term "load board" is widely used in integrated circuit test engineering to describe a printed circuit board that is used to interface a specific tester with a specific integrated circuit.

Claim 1 requires that the conductive switch element be displaceable between a first position, in which the conductive switch element is electrically isolated from the contact pin, and a second position in which it is in electrically conductive contact with the contact pin. In Ueno et al the contact pin is connected at all times to the switch element. Thus there are no distinct first and second positions as recited in claim 1.

Claim 11 contains similar limitations with respect to the switch element and the contact pins and therefore the argument in support of claim 1 applies equally to claim 11.

There is no suggestion in the prior art that the structure shown by Ueno et al should be modified to arrive at the structure defined claim 1 or 11. Therefore, claims 1 and 11 are patentable over Ueno et al. It follows that the dependent claims 2-9 and 13 also are patentable.

Claim 12 stands rejected under 35 USC 102 over Sokolich. Applicant submits that claim 12 is not anticipated by Sokolich.

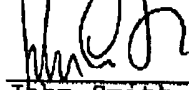
Claim 12 recites a conductive switch element mounted in a contact pin block and displaceable between a first position and a second position. In Sokolich the switches are solid state elements of an

integrated circuit. The common meaning of the term "displaceable" is not applicable to the change in conductive state of semiconductor material in a solid state switch. Therefore claim 12 is not anticipated by Sokolich.

The new claim 13 states explicitly that the conductive switch element is displaceable relative to the contact pins and that in the first position the switch element is electrically isolated from the contact pins of claim 12, line 4, and in the second position the switch element is in electrically conductive contact with the contact pins. Claim 13 requires that the conductive switch element be physically moveable relative to the contact pins between a position in which it is in electrical contact with none of the contact pins (first position) referred to at claim 12, line 4, and a position in which it is in electrical contact with all of the contact pins (second position) referred to at claim 12, line 4. In the described embodiment of the invention, this serves to provide contact pads on the load board with a connection to either a tester channel or to the tester ground. The feature as claimed is not shown or suggested by Sokolich. Therefore claim 13 is patentable over Sokolich independently of claim 12.

Claim 14 requires that in the second position the conductive switch element be in electrically conductive contact with multiple contact pins. Ueno et al, FIG. 16, shows a plurality of switches, each of which either electrically connects or disconnects a single pin 14, of the inspection apparatus to or from the LSI. Claim 13 is therefore patentable over Ueno et al, independently of claim 1.

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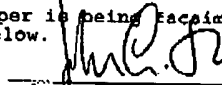
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